The Research on On-line Car Service Platform for Mobile Internet

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Abstract—With the rapid development of mobile internet technology and mobile intelligent device, the online business service platform has been extensively applied. Meanwhile, due to the increase of private cars, it requires the related sales, maintenance and training promptly and accurately. In this paper, we proposed a novel online car service platform (OCSP) APP based on iOS system. The OCSP adopts the iOS system and Internet + model, and realizes the functions such as the vehicles query, vehicle information management, display, shopping cart, order management, user management, etc. The operation results show that the platform is stable, and the user experience is good, full-featured. Furthermore, this system adopts the SQLite database and PC server implementation.

Keywords—Online car service platform; iOS; APP; Mobile internet;

I. INTRODUCTION (HEADING 1)

The Internet is spurring an increase in automotive cross shopping by tracking consumer behavior. And with Internet+ development, the online shopping and service becomes truth, especially for young consumers. The car market as a whole is strong right now, but it is especially true for used vehicles [1, 2], and noting that sales have changed significantly in recent years due to Internet advertising. Although ugh the Internet is a proven sales tool, many dealers need to persuade employees to break their old habits [2]. However, for the effective advertising designed to bring customers into auto dealerships, the authors use the information gathered to develop and validate the effectiveness of the “Comprehensive Mixed Media Model (CMMM)” for the effective advertising methods using television, newspapers, flyers, direct mail, and internet [3]. The maturity of the automobile market also embraces changes in ways of how consumers learn about vehicles, elevate brand awareness, and make purchase decisions [4]. It is very convenient for my customers, and it’s worked out so well for us [5]. It welcomes the opportunity to address areas of interest and need.

In recent years, the development of mobile Internet technology changes with each passing day, and the network has penetrated into every aspect of our life, in all walks of life. The use of the mobile Internet technology, with the improvement of living standards, the auto industry are flying to the discovery of the auto service in our lives, from the traditional sales mode, marketing to 4s shops, and now the mobile internet service platform to sell cars, and convenient for the users on the online way. And through the appointment test drive, the platform provides a full range of car service, such as car insurance, vehicle maintenance and repairs etc. the convenient helps users enjoy the enjoyable shopping trip.

The online service platform is the inevitable trend of social found with real-time and high efficiency, and it realizes the customer and the personnel of the service one-on-one communication, convenience to customers better and faster to understand the product, and also helps the customer service staff to better understand the needs of customers. Meanwhile, the online service platform supports services such as online sales, online booking, online assessment and online consulting etc. All walks of life are also committed to improve the online service platform, car sales application in the network, such as the pacific web site, shopping APP etc.

Car networking information service platform based on Internet+ car model, in terms of the mobile web APP development, build sales direction: the home pad automobile sales and service integration platform and information push, is an automobile sales and after-sales service in both directions. Car sales direction: the home page to provide auto display pictures and product parameters the real-time updating new car news.

Exclusive channel to provide information interaction between the seller and the buyer, conduct our sales and service innovation, realize the query parameter test car, a contract, pay, statistics, such as convenient and quick service, set up mobile interactive platform, achieve accurate docking for the client. After sales service: car to provide users with the map navigation and practical function, car GPS navigation and positioning service query area, such as gas stations, car repair, etc.

This paper includes several aspects as follow: in the introduction, we introduce our research and development of the app information service platform system architecture diagram, basic function and product innovations. And then, in section II, we describe the system model. In section III, the dynamic issues of car have been discussed. Section IV gives the model algorithm and analysis. Finally, in the section V, we make a conclusion.
II. SYSTEM MODEL

A. System Architecture

The basic APP architecture includes four parts: Service layer, Platform layer, Hardware and Collect layer. Each layer corresponds to different service specific functions.

B. Service in

Display: home page for the enterprise to promote their shops, reveal its stores, and after-sales service team, honor and so on enterprise culture.

Product display: APP provides models show, display, and other functions, product image and product parameter.

C. Online services

Sharing transmission: users can through WeChat, weibo will move products, news and share to friends.

Function: booking car booking, booking a test drive, booking maintenance, etc.

News push: using the method such as desktop display, text messages to inform to inform all k-inds of information, for example Maintenance reminder, if you have new information, promotion information, activities, etc.

Pay treasure payment tools such as online payment: binding.

III. CAR DYNAMICES ISSUES

A. The Functional Test

According to the sales and the relationship between the number of sales, it is concluded that the average selling price, as in Eq. (1).

\[
\bar{X} = \frac{\sum_{i=1}^{k} (X_i - \bar{X})}{\sum_{i=1}^{k} (X_i - \bar{X})^2}
\]

And the standard and the relationship between the standard deviation, as in Eq. (2)

\[
S_T = \frac{S}{\sqrt{N}}
\]

In data analysis, sales and sales is a measure of the market, the mean, the median is the study of data results play an important role, in the data comparison, will help us better analysis results.

B. The overall structure of the app

Registered login: convenient buyers by the real-name authentication in car information faster and better

Options: the first letter to retrieve cars, according to automobile types, selecting type of car, vehicle information for cars

Search for the car: by car types, models, area, three keywords to retrieve the car.

Service by app status, find nearby surrounding, such as: gas station, such as repair shops.

C. Data Query

1) Stamping parts list on the structure and outer product data export;
2) Design Auto sales app application software;
3) Process Auto sales app application software;
4) The instantiation model data export;

IV. MODEL ALGORITHM AND ANALYSIS

A. Management Information Feedback

Set up information feedback function, users of the system are the problems existing in the system data, has issued a notice, for the problems in the system directly fill out the feedback form, research and development department and manufacture department, production department to study and confirm
feedback form, change the data in the form of a notice to guarantee the timeliness of data changes.

B. The actual operation and application
Unified model, configuration and app management methods

C. Effect analysis
1) Through practice, the effect of app system after import analysis;
2) The application of app;
3) The basic ideas of management and improve the app accuracy;

<table>
<thead>
<tr>
<th>TABLE I. AUTO ACCELERATION PERFORMANCE TEST</th>
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<tbody>
<tr>
<td>Vehicle type</td>
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<tr>
<td>Braking original speed V, km/h</td>
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<td>S,m</td>
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<tr>
<th>TABLE II. CAR DECELERATION PERFORMANCE TEST</th>
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<tbody>
<tr>
<td>Vehicle type</td>
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<tr>
<td>SubAvg(speed) m/s^2</td>
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<td>Max control, N</td>
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The whole framework of app and the performance of the algorithm

In data analysis, sales and sales is a measure of the market, the mean, the median is the study of data results play an important role, in the data comparison, will help us better analysis results.

Fig. 1. Insights from Analytical Model of Infomediary Channel

Fig. 2. Empirical Model of Infomediary Channel

Automobile brake is mainly composed of braking efficiency, braking performance and thermal recession when braking direction stability of vehicles to evaluate three aspects.

V. CONCLUSION

The research and development of the vehicle network information service platform APP, through the secondary encryption and mobile real-time verification code in order to ensure information security. Based on Internet + technology, through information sharing, establish online one-stop services, strengthening the construction of enterprise credibility, creating considerable profit for enterprises. The APP can improve service timeliness, reduce customer churn rate, integrative service standard and objective evaluation system. Through the APP big data acquisition and analysis of the data to produce accurate business decisions, facilitate directional promotion products.

REFERENCES